

ACCESSION NR: AP4016844

structure carbon black, developed only since 1962, which is used in mixtures with the stereospecific rubber 1,4-cis-polybutadiene. The present paper describes the work on a semi-industrial installation for the preparation of different kinds of carbon black from petroleum raw material available in Rumania, by the "tangential flame reactor with precombustion" procedure. A new design has been adopted for the furnace, considered an improvement over the ones reported in the literature. The cylindrical furnaces have interior lining made of refractory and thermoisolating brick. Liquid raw material is introduced through an axial burner together with a slight excess of air. A number of tangentially oriented burners supply the fuel (methane gas) with a supplemental amount of air. The following parameters have been changed: the ratio raw material: air, temperature, the flow of liquid raw material, flow of methane, ratio of air introduced through the axial and tangential burners. The qualities obtained replace successfully the "contact" type obtained from natural gas, are obtained more economically with lower specific consumption and smaller investments. Tires made with the carbon black obtained by this procedure have a 20-30% longer road-life.

ASSOCIATION: none

SUBMITTED: 16Apr64

DATE ACQ: 12Mar64

ENCL: 00

SUB CODE: CH

NO REF SOV: 006

OTHER: 014

Card 2/2

MERK, Otto.

To the bitter end in Stalingrad (continuation). Nasli vesti 9 no.36:6-7
Ag '53. (MLRA 6:7)

(Stalingrad, Battle of, 1942-1943)

MERK, Otto.

To the bitter end in Stalingrad (conclusion). Nashi vesti 9 no. 37:6-8
Ag '53. (MLBA 6:7)

(Stalingrad, Battle of, 1942-1943)

CHMELO, K.; MERKA, J.

On the toxicity of vitamin K (experimental part). Cesk. pediat.
14 no.8:741-745 Aug 59.

1. Z detskeho oddelenia OUNZ I. Mikulas, prednosta MUDr. K. Chmelo.
(VITAMIN K, toxicol.)

MERKA, Jan; CHMELO, Kornel

Course of influenza (1957) in the newborn. Cas. lek. cesk. 98
no.34:1077-1081 21 Aug 59

1. Detské odd. OUNZ Lipt Mikulas, prednosta prim. dr. Kornel Chmelc.
(INFLUENZA, in inf. & child)
(INFANT NEWBORN, dis.)

HORANSKY, V.; MERKA, J.; HLAVCO, J.; SOLTES, L.

Chronic generalized tuberculous lymphadenitis (Leitner) in a
10-year-old girl. Cesk.pediat.16 no.3:245-248 Mr '61.

1. Detske odd. OUNZ v Lipt.Mikulasi, prednosta MUDr. V.Horansky.
(TUBERCULOSIS LYMPH NODE in inf & child)

MERKA, J.; HORANSKY, V.

A new technic for the management of the umbilicus in staphylococcal infections. Cesk.pediat.16 no.3:269-273 Mr '61.

1. Novorodenicke oddelenie GUNZ v L. Mikulasi, prednosta MUDr.
V. Horansky.

(UMBILICUS)

(INFANT NEWBORN dis)

(STAPHYLOCOCCAL INFECTIONS in inf & child)

HORANSKY, V.; MERKA, J.; Technicka spolupraca BRTAN, F.

Emergency tables for children's wards. Cesk. pediat. 17 no.4:363-364
Ap '62.

1. Detske odd. OUNZ v Lipt. Mikulasi, prednosta MUDr. V. Horansky.

(PEDIATRICS hosp & clin) (EMERGENCIES)

HORANSKY, V.; SOLTES, L.; THOLT, R.; HLAVCO, J.; MERKA, J.

Staphylococcal empyema as a complication of morbilli. Cesk. pediat.
18 no.1:23-25 Ja '63.

1. Detske oddelenie OUNZ v Liptovskom Mikulasi, prednosta MUDr.
V. Horansky Infekcne oddelenie OUNZ v Liptovskom Mijulasi, prednosta
MUDr. R. Tholt.

(MEASLES) (STAPHYLOCOCCAL INFECTIONS RESPIRATORY)
(EMPYEMA)

L 46930-65 EPR/T/EWP(t)/EWP(v)/EWP(k)/EWP(b)/EWP(l)/EWP(h) Pf-L JD
ACCESSION NR: AP5015107 CZ/0057/64/000/009/0425/0431

AUTHOR: Merka, Pavel(Engineer)

TITLE: Service life of ganister roofs in open hearth furnaces

SOURCE: Hutnik, no. 9, 1964, 425-431

TOPIC TAGS: metallurgic furnace

Abstract: A mathematical and statistical analysis is made of the effect of the quality of ganister and other factors on the service life of ganister roofs. Results of the investigation are compared with foreign requirements. Data collected are used to determine the quality standards of ganister for open-hearth furnace roofs, and a critical evaluation is made of the Czechoslovak Standard No 72 6105. Orig. art. has 3 figures, 6 graphs, and 3 tables.

ASSOCIATION: VZKG, Ostrava

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 001

OTHER: 011

JPRS

me
Card 1/1

L 44770-65 EWP(b)/EWP(t) JD

ACCESSION NR: AP5015033

CZ/0057/64/000/011/0539/0542

AUTHOR: Merka, Pavel (Engineer)

TITLE: Influence of chemical composition and certain production factors on the service life of molds

SOURCE: Hutnik, no. 11, 1964, 539-542

TOPIC TAGS: metal casting, steel

Abstract: This article reports on the consumption of molds in steel plants. An investigation was made of the influence of the contents of carbon, silicon, manganese, phosphorus and sulfur and the influence of the composition of the charge on the service life of molds. Of production factors, the only available information was the period of aging of the molds and the number of castings per mold per day. Orig. art. has 3 figures, 9 graphs, and 2 tables.

ASSOCIATION: VZKG, Ostrava

Card 1/2

L 44770-65

ACCESSION NR: AP5015033

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 000

OTHER: 004

JPRS

Card 2/2 mb

L 21450-66 EWP(t) JD

ACC NR: AP6011965

SOURCE CODE: CZ/0057/65/000/003/0113/0116

AUTHOR: Merka, Pavel (Engineer)

ORG: VZKG, Ostrava

TITLE: Construction of square forms for unstilled steel

SOURCE: Hutnik, no. 3, 1965, 113-116

TOPIC TAGS: metal casting, metallurgy

ABSTRACT: The life of a square form as compared to other types of forms is evaluated. Changes in construction of casting forms that occurred since 1937 are discussed, and the influence of these changes upon the life of the forms is evaluated. Tests made with forms provided with extended outside surfaces, and with forms having reinforcing steel bands are described. The influence of the conical shape of the forms is evaluated. Good construction of the forms can reduce their consumption to below 10 kg/ ton, from the present figure of 15 - 35 kg/ ton. Experimental results showed a reduction from 16.5 kg/t to 9.6 kg/t. Orig. art. has: 8 figures and 1 table. [JPRS]

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 003 / SOV REF: 003

rimmed steel

Card 1/1

CZECHOSLOVAKIA / Pharmacology and Toxicology. Medicinal Plants. V-8

Abs Jour : Ref. Zhur - Biologiya, No 17, 1958, No. 80638

Author : Morka, Vladimir

Inst : Not given

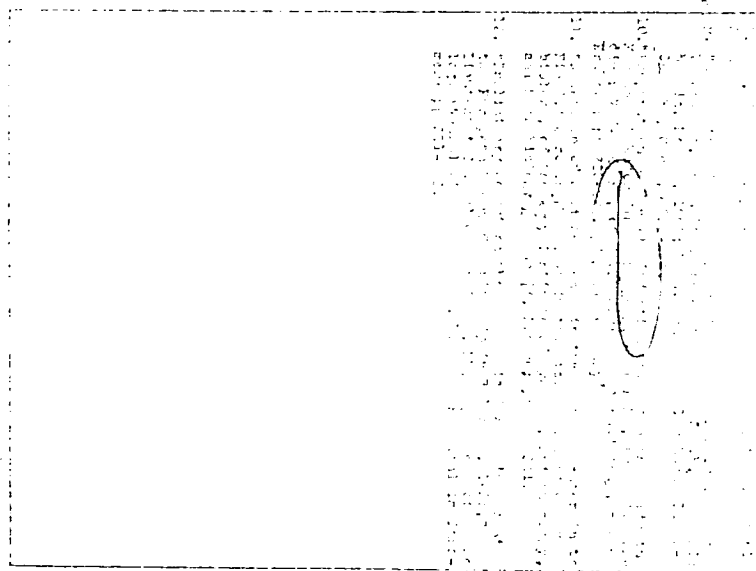
Title : Use of Fruits of Hyppophae rhamnoides L. for Medicinal Purposes

Orig Pub : Vojenske zdravotn. listy, 1956, 25, No 11, 528-529

Abstract : It is established that in the fruits of H. rhamnoides there is contained 2.8-7.8% oil, 272.5 mg% of vitamin C, 0.016-0.035 mg% of vitamin B₁, 0.030-0.056 mg% of vitamin B₂, 8 mg% of vitamin E, 1.1-10.9 mg% of carotin. The seed of the fruit contains 10-12% oil, 0.3 mg% of carotin, 0.28 mg% of vitamin B₁, 0.38 mg% of vitamin B₂, 14.3 mg% of vitamin E. The oil possesses an epithelizing and anesthetizing effect and is used with success in gynecological practice, for the treatment of slow-healing wounds, and in radiation sickness.

Card 1/1

MERKA, V.



MERKA, V

CZECHOSLOVAKIA

Lt Col MD M. HASMAN, Major RNDr PHMr V. MERKA, Chair (Katedra) CTZS
VLVDU JEV [abbreviation not identified: a military branch of the
University J.EvPurkyně in Brno?]; Head (Nacelnik) Lt Col MD Karel
SLEZAK.

"Medical Evacuation Equipment and Trends of its Development Abroad."

Prague, Vojenske Zdravotnické Listy, Vol 31, No 5, Oct 62; pp 228-230.

ABSTRACT: All about stretchers. Comprehensive review of published
literature regarding various types of stretchers and auxiliary
facilities, and procedures for mass casualty evacuation, with
discussion of various technical details. Illustration of stretcher
bundles; 16 Western, 1 Soviet and 2 Czech references.

1/1

MERKA, V.; SKALA, E.; PESAK, M.; MELICHAR, M.; SANDA, M.

Cleaning transfusion bottles with detergents. Cesk. farm.
12 no. 8:411-416 0'63.

1. Vojensky lekarsky vyzkumny a doskolovaci ustav, Hradec
Kralove; Ustredni vojenska nemocnice, Praha; Lekarska fa-
kulta PU, Olomouc.

*

MERKA, V.; SITA, F.; ZIKES, V.

Performic and perpropionic acids as disinfectants in comparison with peracetic acid. J. hyg. epidem. (Praha) 9 no.2:220-226 '65.

1. The Army Medical Research and Postgraduate J.E. Purkyne Institute, Hradec Kralove.

CZECHOSLOVAKIA UDC 613.488:615.777(595.7)-085.523-073.176

KYNTERA, Frantisek; MERKA, Vladimir; RADVAN, Rostislav; VLVDU JEP [Abbreviations not explained] and Medical Faculty, Charles University (Lekarska Fakulta KU), Hradec Kralove.

"Residual Effect of Fabrics Impregnated with Insecticides."

Prague, Vojenske Zdravotnicke Listy, Vol 35, No 4, Aug 66, pp 166 - 169

Abstract [Authors' English summary modified]: The effect of fabrics impregnated with insecticides was tested on lice (Pediculus humanus corporis). The most effective insecticide was found to be the gamma isomer of lindane in solution; other insecticides tested were in a decreasing line of efficiency: a mixture of DDT and lindane; DDT; emulsion of lindane with delayed fixation; "Fosfotion" (ethoxycarbonyl-ethyl-dithiophosphate). The relative efficiency of these insecticides did not change after 7 years of storage, and they lost only 3-5% of their efficiency. The optimum amount of insecticide used seems to be an amount of 1.5-3% of the weight of the dry fabric. 3 Figures, 2 Tables, 5 Western, 3 Czech, 1 Russian, 3 Polish references.
1/1

MICROBIOLOGY

CZECHOSLOVAKIA/HUNGARY

UDC

614.777-078:542.67

BIRO, Gyorgy, GECK, Peter; MERKA, Vladimir; Health Service of the Hungarian Peoples Army, Budapest [Original version not given]; J.E. Purkyne Military Medical Research and Postgraduate Training Institute (Voj. Lek. Vyzk. a Dorskol. Ustav), Hradec. Kralove.

"The Use of Membrane Filters of Different Production for Microbiological Examination of Water and in the Phage Technique"

Prague, Vojenske Zdravotnicke Listy, Vol 35, No 4, Aug 66, pp 177-179

Abstract: Filters produced in Western Germany (Co 5) and of Czechoslovak manufacture (HUFs and VUFs) were compared in the determination of bacterium coli index in water, in the proof of enteral bacteria by the haptene flocculation method, and in the sterilization filtration of phage suspensions. The filtration efficiency of the products is identical, but the Czechoslovak products have a lower rate of filtration, and their regeneration is more difficult. 1 Table, 19 Western, 7 Czech, 1 Russian, 2 Hungarian, 1 Polish reference.

1/1

L 05852-07 EWP(J) RM

ACC NR: AP6031139

SOURCE CODE: CZ/0060/66/000/004/0166/0169

AUTHOR: Kyntera, Frantisek (Lieutenant colonel; Doctor of medicine; Candidate of sciences); Merka, Vladimir (Lieutenant colonel; Doctor of natural sciences; Pharmacist); Radvan, Rostislav (Doctor of natural sciences; Candidate of sciences)

ORG: VLVDU; Medical School KU, Hradec Kralove

TITLE: Residual effect in fabrics impregnated with insecticides

SOURCE: Vojenske zdravotnicke listy, no. 4, 1966, 166-169

TOPIC TAGS: insecticide, impregnated fabric, long term storage

ABSTRACT: The authors intended to verify the possibility of long-term storage of fabrics impregnated with insecticides. They used DDT, HCH, and phosphothion in their tests. The most effective insecticide was found to be the γ -isomer HCH, then, in order of their effectiveness, a mixture of DDT and γ -isomer HCH, DDT, HCH, and last, phosphothion. This order remained unchanged in tests of fabrics impregnated seven years ago and stored. The effectiveness of the insecticide was reduced by only 3--5%, which proved that even long-term storage does

Card 1/2

L 05852-67

ACC NR: AP6031139

not impair the effectiveness of fabrics impregnated with insecticides. The best
concentration of insecticide was found to be 1.5--3% of the weight of the dry
fabric. Orig. art. has: 3 figures and 2 tables. [W.A.50] [KS]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 003/ SOV REF: 001/
OTH REF: 008/

Card 2/2 *epk*

MERKADER, L. P.

Merkader, L. - "Extra high frequency triode tube amplifier with a grounded grid,"
Trudy Studench. nauch.-tekhn. o-va (Mosk. energet. in-^t im. Molotova), Issue 2,
1948, p. 9-19

SO: U-4355, 14 August 53, (Letopis 'Zhurnal, 'nykh Statey, No. 15, 1949)

MERKADER, L.P.

Review and bibliography ("Frequency modulation; theory and application in radio relay lines" by J. Fagot and P. Magne. Reviewed by L.P. Merkader). Radiotekh. i elektron. 5 no.11:1876 N '60. (MIRA 13:11)

(Radio frequency modulation)
(Fagot, J.)

(Radio relay systems)
(Magne, P.)

LEVIN, B.R.; MAKSIMOV, Yu.P.; MERKADER, L.P.

Crosstalk resulting from simultaneous transmission of television
and telephone communications along the same lines. Elek-
trosviaz' 14 no.4:49-61 Ap '60. (MIRA 13:6)
(Telephone) (Television--Interference)

Merkalov, N. I.

Merkalov, N. I. The problem of the motion of a solid body, having a fixed point, for $A=B=4C$ and the area integral $\neq 0$. Bull. Acad. Sci. URSS. Cl. Sci. Tech. [Izvestia Acad. Nauk SSSR] 1946, 697-701 (1946). (Russian)

L'auteur étudie le problème classique du mouvement d'un solide S , soumis à l'action de la pesanteur seule et dont le point O est fixe. Il construit une solution approchée des équations d'Euler, en particulierisant l'ellipsoïde d'inertie Σ de S en O ainsi que les conditions initiales. Avec les notations classiques, il admet que: (1) $A=B=4C$, (2) le centre de gravité de S est dans le plan équatorial de Σ , (3) $p_0=q_0=0$. La constante des aires n'est pas supposée nulle. L'auteur espère réaliser un gyroscope propre à servir au contrôle expérimental des lois de mouvement qu'il a trouvées.

J. Kharichenko (Grenoble).

Some

MERKALOV, N.I.

Mathematical Reviews
Vol. 14 No. 11
December, 1953
Mechanics.

*Merkalov, N. I. Teoriya prostranstvennykh mekhanizmov.
[The theory of spatial mechanisms.] Pp. 3-124, 195-
199. Gosudarstv. Naučno-Tekhn. Izdat. Mašinostroit.
Lit., Moscow, 1951. 205 pp. 11.40 rubles.

The title of this book is misleading. In reality, the book
is a posthumous collection of nine of Merkalov's papers of
which the six first ones (124 pp.) deal with mechanisms,
while three (76 pp.) do not. Moreover, the part dealing with
mechanisms is partly concerned with plane kinematics or
quite elementary theorems of spatial kinematics. Papers 7
and 8 (pp. 125-194) concern the hydrodynamic theory of

lubrication and are reviewed separately [these Rev. 14,
1139].

The first paper (12 pp.) deals with the determination of
the position of a skew seven-bar linkage by means of de-
scriptive geometry. The second is a three-page remark on
the velocity distribution in a seven-bar chain. The third
paper (pp.) is mostly expository and has been compiled
from the author's 1920-21 lectures on space kinematics by
one of his students. It contains some further remarks about
seven-bar space linkages. Papers four and five (46 pp.) treat
gears with skew axes, and are mostly expository. Paper six

(6 pp.) suggest how to use a chain belt to produce a variable transmission ratio between two parallel axes (when unground gears are inconvenient).

The ninth paper (5 pp.) considers the motion of a rigid body with a fixed point at which $A = B = 4C$, the mass center being located in the equatorial plane of the inertial ellipsoid. He derives two equations for $\omega = (p^2 + q^2)^{1/2}$ and q , containing the energy constant and the constant vertical momentum component, from the energy equation and the vertical momentum equations. One of these equations is integrable again if $A = 4C$, and an equation for ω alone can be obtained. The approximate solution for q and ω by means of a two-term polynomial in $\xi = \int p dt$ is given. [The dependence of ξ on t will have to be determined by another integration.]

A. W. Wundheiler (Chicago, Ill.).

MERKALOV, N.I.

*Merkalov, N. I. Izbrannye trudy. Tom I. Prikladnaya mekhanika. [Selected works. Vol. I. Applied mechanics.] Gosudarstv. Naučno-Tehn. Izdat. Mašinstroït. Lit., Moscow, 1952. 368 pp. (2 plates). 10 rubles.

This volume contains Merkalov's lectures on "The general theory of mechanisms" (1904) and on "The general theory of machines" (1914).

10/2 7/54
80/10

MEKAS, Zlatko, dr.; BEKERUS, Milos, dr.

Clinical analysis of 127 cases of cancer of the lower lip treated from 1951-1952. Srpski arh. celok lek. 82 no.9:1062-1068 Sept 54.

1. Radioloski institut Medicinskog fakulteta u Beogradu, upravnik prof. dr. Stojan Dedic.

(LIPS, neoplasms
of lower, radiother.)

(RADIOTHERAPY, in various dis.
cancer of lower lip)

MERKAS, Zlatko; BEKERUS, Milos

Clinical picture and classification of lingual cancer. Srpski
arh. celok. lek. 84 no.5:630-637 May 56.

1. Radioloski institut Medicinskog fakulteta u Beogradu.
Upravnik: prof. dr. Stojan Dedic.

(TONGUE, neoplasms,
classif. & clin. aspects (Ser))

MERKAS, Zlasko

Possibility of radiocobalt teletherapy of malignant tumors. Srpski arh.
celok. lek. 87 no.1:77-82 Jan 59.

1. Radioloski institute Medicinskog fakulteta u Beogradu Upravnik:
prof. dr Bogoljub Bosnjikovic.

(NEOPLASMS, ther.

radiocobalt telether. (Ser))

(COBALT, radioactive,

ther. of cancer, telether. (Ser))

MERKAS, Zlatko

Clinical use of the beta-ray applicator. Srpski arh. celok.
lek. 87 no.6:544-549 Je '59.

1. Radioloski institut Medicinskog fakulteta u Beogradu, upravnik:
prof. dr Bogoljub Bošnjakovic.
(RADIOTHERAPY)

MERKAS, Zlatko; ~~BEKERUS~~, Milos

5-year results of radiological therapy of cervical cancer.
Srpski arh. celok. lek. 87 no.10:905-911 0 '59.

1. Radioloski institut Medicinskog fakulteta u Beogradu,
upravnik: prof. dr Bogoljub Bosnjakovic.
(CERVIX NEOPLASMS radiother.)

MERKAS, Zlatko

Melanoma malignum portionis vaginalis uteri. Srpski arh. celok.
lek. 87 no.11:1046-1049 N '59.

1. Radioloski institut Medicinskog Fakulteta u Beogradu, Upravnik:
prof. dr Bogoljub Bosnjakovic.
(CERVIX NEOPLASMS case reports)
(MELANOMA case reports)

BOSNJAKOVIC, Bogoljub, prof. dr.; MERKAS, Zlatko, doc.dr.; BEKERUS,
Milos, dr.

Our preliminary results of the treatment with Sr90. Med.glasn. 14
no.5:257-259 My '60.

1. Radioloski institut Medicinskog fakulteta u Beogradu (Upravnik:
prof. dr B.Bosnjakovic)
(STRONTIUM radioactive)
(NEOPLASMS radiother)

MERKAS, Z., doc., dr.

Teleradiotherapy with radioactive cobalt. Med. glasn. 14 no.11:
510-512 N '60.

1. Radioloski institut Medicinskog fakulteta u Beogradu (Upravnik:
prof. dr B. Bosnjakovic).

(COBALT radioactive) (NEOFLASMS radiother)

MERKAS, Zlatko; BEKERUS, Milos; BOZIC, Radovan

Plastic induration of the penis. Srpski arh. celok. lek. 88 no.9:
881-885 S '60.

1. Radioloski institut Medicinskog fakulteta Univerziteta u Beogradu.
Upravnik: prof. dr Bogoljub Bosnjakovic.

(PENIS dis)

MERKAS, Zlatko; BEKERUS, Milos; PENDIC, Smilja

Radioactive iodine in the treatment of thyroid cancer. Srpski arh.
celok. lek. 88 no.10:1005-1009 0 '60.

1. Radioloski institut Medicinskog fakulteta Univerziteta u Beogradu.
Upravnik: prof. dr Bogoljub Bosnjakovic.

(IODINE radioactive) (THYROID GLAND neopl)

PENDIC, S.; MERKAS, Z.; BEKERUS, M.; NESTOROVIC, N.

Quantitative studies on erythropoiesis in malignant diseases irradiated by therapeutic doses of ionizing radiations. Prim. radioaktiv.izotop. 2 no.3:36-44 D 61.

1. Radioloski Institut Medicinskog fakulteta u Beogradu Upravnik Prof. Dr. B. Bosnjakovic.

(CHROMIUMISOTOPES)	(ERYTHROCYTES)	(RADIOTHERAPY)
(NEOPLASMS)	(HEMATOPOIESIS)	

MERKAS, Zlatko

Ocular radioactive strontium applicators and indications for their use. Srpski arh. celok. lek. 89 no.1:77-81 Ja '61.

1. Radioloski institut Medicinskog fakulteta Univerziteta u Beogradu.
Upravnik: prof. dr Bogoljub Bosnjakovic.

(OPHTHALMOLOGY radiother) (STRONTIUM radioactive)

MERKAS, Zlatko; BEKERUS, Milos; PARUNOVIC, Milutin

Therapeutic results in carcinoma of the penis. Srpski arh. celok.
lek. 89 no.3:329-333 Mr '61.

1. Radioloski institut Medicinskog fakulteta Univerziteta u Beogradu.
Upravnik: prof. dr Bogoljub Bosnjakovic.

(PENIS neopl)

BOSNJAKOVIC, Bogoljub; PODVINEC, Srecko; MERKAS, Zlatko

Telecobalt therapy in otorhinolaryngology. Srpski arh. celok.
lek. 91 no.3:283-288 Mr '63.

1. Radioloski institut Medicinskog fakulteta Univerziteta u
Beogradu Upravnik: prof. dr Bogoljub Bosnjakovic Klinika za
uvo, nos i grlo Medicinskog fakulteta Univerziteta u Beogradu
Upravnik: prof. dr Srecko Podvinec.

(RADIOISOTOPE TELETHERAPY)

(COBALT ISOTOPES)

(LARYNGEAL NEOPLASMS)

(NEOPLASM RADIOTHERAPY)

ALADYEV, I. T.; POVARNIN, K. P.; MALKINA, L. I.; MERKEL, E. Yu.

"Investigation of the cooling properties of ethyl alcohol at pressures to 500 ATM."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

G. M. Krzhizhanovskiy Power Inst.

POLAND / Microbiology. General Microbiology. Physiol- F
ogy and Biochemistry.

Abs Jour: Ref Zhur-Biol., No 2, 1959, 5490.

Author : Kwapinski, J., Merkel, M.

Inst : Polish Academy of Sciences.

Title : Investigations into the Chemical and Antigenic
Structure of the Genus Streptomyces. I. The
Chemical Structure of Streptomyces griseus.

Orig Pub: Bull. Acad. polon. sci., 1957, Cl. 2, 5, No 10,
335-340, XLIII.

Abstract: Using different methods of extraction, the cells
of four strains of *S. griseus* were divided into
41 fractions (9 lipoid, 21 polysaccharide and 11
nucleoprotein). Lipoid fractions contained 0.1-
0.5% of phosphorus and from 1 to 4 higher fatty
acids, viz., palmitic, stearic, oleic and an acid
with Rf 0.17. In polysaccharide fractions, 0.35-

Card 1/2

POLAND / Microbiology. General Microbiology. Physiol- F
ogy and Biochemistry.

Abs Jour: Ref Zhur-Biol., No 2, 1959, 5490.

Abstract: 4.73% of nitrogen and 23-97% of sugars were found, including glucose, mannose, arabinose, xylose and rhamnose in various combinations. Nucleoprotein fractions contained 2.59-12.62% of nitrogen and 25-78% of protein. From the cells of Actinomyces, 15 different acids were extracted, one of which, with Rf 0.93, was characteristic of strains of *S. griseus*.

Card 2/2

MERKEL, M.

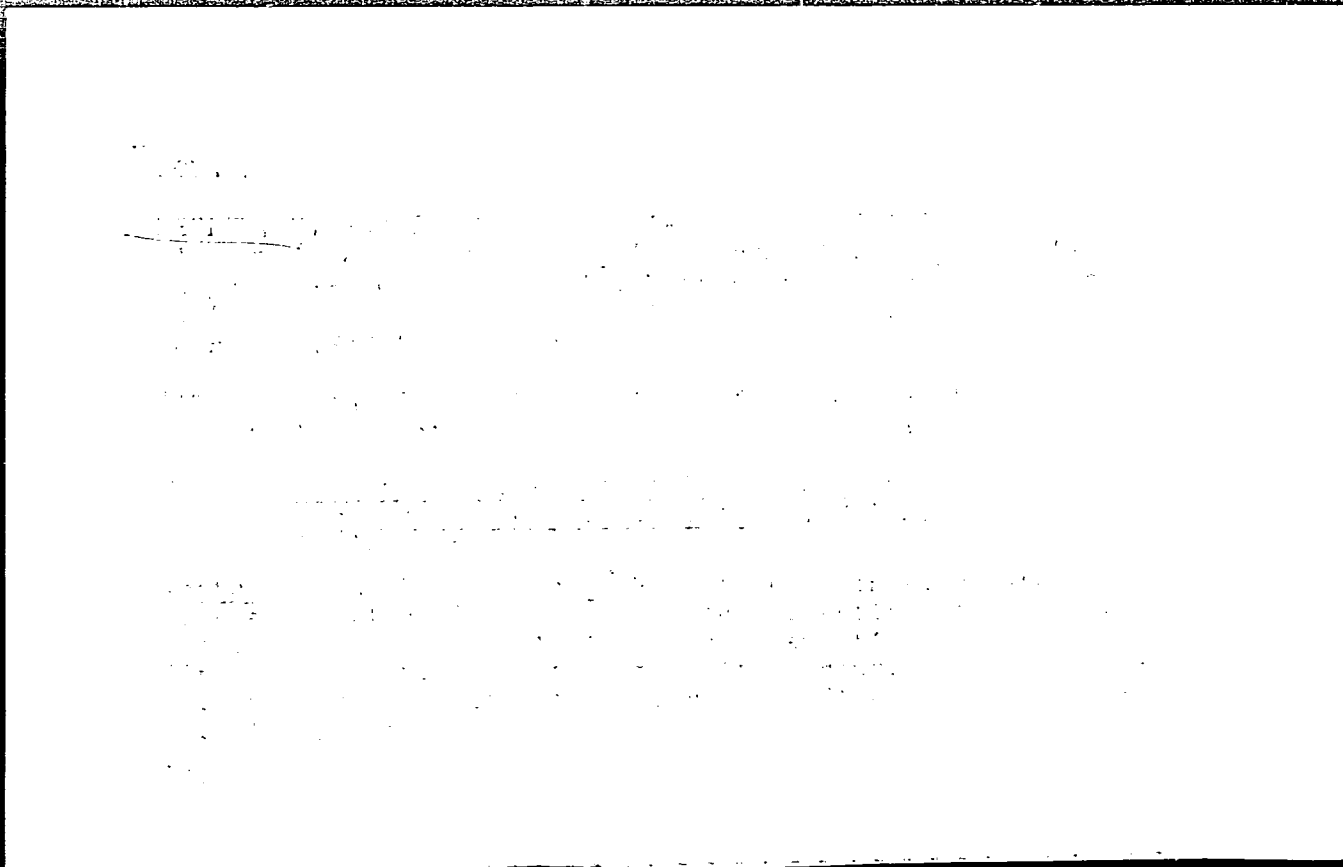
Investigations on the chemical structure of the genus Achorion. II.
Chemical structure of Achorion quinckeanum. Bul Ac Pol biol 7 no.12:
501-505 '59. (EEAI 9:12)

1. Department of Microbiology, School of Medicine, Warsaw. Presented
by E.Mikulaszek.
(ACHORION QUINCKEANUM)

MERKEL, M.; ZAWADOWSKA, I.

Studies on the effects of some nitrophenoxyacetic and alpha- and beta-(nitrophenoxy) propionic derivatives on fungi pathogenic to man. Bul Ac Pol biol 10 no. 243-49 '62.

1. Department of Medical Microbiology, School of Medicine, Warsaw, and Department of Organic Chemistry, Pharmaceutical Faculty, School of Medicine, Warsaw. Presented by E. Mikulaszek.



ZAWADZKI, Teodor; MEKEL, Mieczysław; SZUCHNIK, Andrzej; SWIDERSKI, Jan

Research on compounds with antimycotic activity. VI. Roczniki
chemii 36 no.5:895-902 '62.

1. Department of Organic Chemistry, Medical Academy, Warsaw,
Department of Medicinal Microbiology, Medical Academy, Warsaw,
and Department of Organic Chemistry, University, Warsaw.

11869

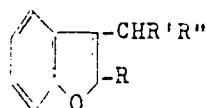
S/081/62/000/024/049/073
B106/B186

AUTHORS: Zawadowski, Teodor, Merkel, Mieczysław, Szuchnik, Andrzej, Świderski, Jan

TITLE: Investigation of compounds with fungicidal properties.
VI. Synthesis of some derivatives of 1,1,1-trichloro-2-hydroxy-3-(carboxy-methoxy-benzofuryl-3')-propane

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1962, 361, abstract 24Zh276 (Roczn. chem., v. 36, no. 5, 1962, 895 - 902 [Eng.; summaries in Pol. and Russ.])

TEXT:



- Xa $R = R' = H$, $R'' = CH(OH)CCl_3$;
b $R = NO_2$, $R' = H$, $R'' = CH(OH)CCl_3$;
c $R = NH_2$, $R' = H$, $R'' = CH(OH)CCl_3$;
d $R = R' = H$, $R'' = CH(Cl)CCl_3$;
e $R = H$, $R' + R'' = CHCl_3$.

Card 1/4

Investigation of compounds with ...

S/081/62/000/024/049/073
B106/B186

To study their fungicidal properties, 6-carboxy-methoxy- and 5-carboxy-methoxy-3-methyl-benzofuran (I and II), as well as 3-(6'-carboxy-methoxy-benzofuryl-3')- and 3-(5'-carboxy-methoxy-benzofuryl-3')-1,1,1-trichloro-2-hydroxy-propane (III and IV) were synthesized. 2,4-di-(carboxy-methoxy)-2-hydroxy-4-carboxy-methoxy-, 2,5-di-(carboxy-methoxy)- and 2-hydroxy-5-carboxy-methoxy-acetophenone (VI-IX) were obtained by boiling the Na salts of 2,4-dihydroxy-acetophenone (V) and of 2,5-dihydroxy-acetophenone with $\text{ClCH}_2\text{COONa}$; compounds VI and VIII gave, with $(\text{CH}_3\text{CO})_2\text{O}$, I and II. A

biological investigation of the compounds I-IV, VI-IX, and further of (Xa-e) showed that the introduction of the HOOCCH_2O group does not change the antimycotic properties. A mixture of 0.2 mole of NaOH in 20 ml of water, 0.4 mole of $\text{ClCH}_2\text{COONa}$ in 100 ml of water, and 0.1 mole of V is heated for 1 hr, alkalized with 30 % NaOH, and boiled for 3 hrs. VI, $\text{C}_{12}\text{H}_{12}\text{O}_7$, m.p. 220°C (from water), and VII, $\text{C}_{10}\text{H}_{10}\text{O}_5$, m.p. 159°C (from water) are separated by acidification. VIII, $\text{C}_{12}\text{H}_{12}\text{O}_7$, yield 50 %, m.p. 202°C (from water), and IX, $\text{C}_{10}\text{H}_{10}\text{O}_5$, m.p. 147°C (from water) were ob-

Card 2/4

Investigation of compounds with ...

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tained in the same way. Boiling of 0.1 mole of V and 0.2 mole of NaOH in 30 ml of water with 0.15 mole of $\text{ClCH}_2\text{COONa}$ in 40 ml of water (5 hrs) gave VII. IX was obtained similarly in 15 % yield. 3.5 g VII, 2 g $\text{CH}_3\text{COOC}_2\text{H}_5$ and 1.3 g Na are boiled for 1 hr, 2 g $\text{CH}_3\text{COOC}_2\text{H}_5$ is added to the comminuted precipitate, boiled for 30 min, the solvent is removed, the residue is treated with 5 ml of CH_3COOH , 1 ml of $(\text{CH}_3\text{CO})_2\text{O}$ and 1 ml of conc. HCl, boiled for 30 min and diluted with water (1:10). 2-methyl-7-carboxy-methoxy-chromone, $\text{C}_{12}\text{H}_{10}\text{O}_5$, yield 37 %, m.p. 276°C (from alcohol) is obtained; the analogous chromone could not be obtained from IX. 0.1 mole of VI, 0.5 mole of $(\text{CH}_3\text{CO})_2\text{O}$ and 5 g CH_3COONa are boiled for 1 hr, diluted with water and evaporated to dryness. This gives I, yield 70 %, m.p. 142°C (from water). II, $\text{C}_{11}\text{H}_{10}\text{O}_4$, yield 70 %, m.p. 160°C (from water) was obtained similarly. A mixture of 0.01 mole of I in $\text{CH}_3\text{C}_6\text{H}_5$ -petroleum ether (1:1, b.p. 90°C) and 0.015 mole of CCl_3CHO is boiled for 20 hrs (120°C), and III is isolated, $\text{C}_{13}\text{H}_{11}\text{Cl}_3\text{O}_5$, yield 40 %, m.p. 152°C (from $\text{CH}_3\text{C}_6\text{H}_5$). IV, $\text{C}_{13}\text{H}_{11}\text{Cl}_3\text{O}_5$, yield 40 %, m.p. 97°C
Card 3/4

Investigation of compounds with ...

S/081/62/000/024/049/073
B106/B186

(from water) is obtained from 0.6 g II, 1.2 g CCl_3CHO and 0.05 g CH_3COONa in 5 ml $\text{CH}_3\text{C}_6\text{H}_5$ (ampul, 130-136°C, 10 hrs). For communication V see RZhKhim, 1961, 4Zh145. [Abstracter's note: Complete translation]

Card 4/4

MERKEL, M.; ZAWADOWSKA, I.

The action of some derivatives of phenoxyacetic and
phenoxypropionic acids on fungi pathogenic to man. Bul Ac
Pol biol 10 no. 12:501-504 '62.

1. Department of Medical Microbiology, School of Medicine,
Warsaw and Department of Organic Chemistry, Pharmaceutical
Faculty, School of Medicine, Warsaw. Presented by E.
Mikulaszek.

*

ZAWADOWSKI, Teodor; MERKEL, Mieczyslaw; SZUCHIK, Andrzej; SWIDERSKI, Jan

Search for compounds with antismycotic activity. Pt.7. Roczniki chemii 36 no.12:1775-1779 '63.

1. Department of Organic Chemistry, Medical Academy, Warsaw,
Department of Microbiology, Medical Academy, Warsaw, and
Department of Organic Chemistry, University, Warsaw.

KURYLOWICZ, Włodzimierz; BURACZEWSKA, Maria; KOSTRZENSKI, Władysław;
KULEJEWSKA, Magdalena; MANOWSKA, Wanda; MERKEL, Mieczysława;
PICHULA, Krystyna, PAKLEWSKA-POBRATYN, Hanna; TUSZYŃSKA, Barbara.

Comparative studies on BCG substrains of various origin. Observations on the streptomycin and isonicotinic acid hydrazide-sensitive and resistant variants of the Brazilian Moreau substrain. Arch. immun. ther. exp. 12 no.2:182-195 '64

1. Department of Microbiology, Institute of Tuberculosis, Warsaw.

SANDULA, J.; HERMEL, M.

Chemical structure of *Candida albicans*. Bull. acad. Pol. sci.
[Biol.] 13 : o.8:463-468 '65.

1. Submitted March 30, 1965.

Σ

~~MERKEL'~~, Mikhail Arkad'yevich; MENDELEV, L.M., redaktor; VASIL'YEV, L.V.,
redaktor; RAKOV, I.S., tekhnicheskij redaktor

[Carpenter] Plotnik-opalubshchik. Izd. 3-e perer. i dop. Moskva,
GVses.uchebno-pedagog. izd-vo Trudrezervizdat, 1955. 235 o.
(Carpentry) (MLRA 9:1)

MERKEL', M.A., kand.tekhn.nauk, dotsent

Development of modern wooden construction elements. Sbor. nauch.
trud. LISI no.3:7-25 '59. (MIRA 13:7)
(Building, Wooden)

CEL'YANENKO, L.M. (Moskva); MERKOVA, M.A. (Moskva); VIKTURLINA, V.P. (Moskva);
SIVERIKOVA, I.Ye. (Moskva)

Problem of the causes of errors in the diagnosis of chronic
radiation sickness. Trudy TSentr. nauch.-issl. inst. rentg. i
rad. 11 no.1:270-278 '64. (MIRA 18:11)

MIKHAL'SKIY, Vladislav Nikolayevich; POFALITOV, Anufriy Pavlovich;
MERKEL', Ya.P., inzh., retsenzent; BRAYLOVSKIY, N.G., inzh.,
red.; USENKO, L.A., tekhn. red.

[Organization of the conveyer method of car repairs;
experience of the Stryy Railroad Car Repair Plant] Organiza-
tsiia konveiernogo metoda remonta vagonov; opyt Stryiskogo
vagonoremontnogo zavoda. Moskva, Vses. izdatel'sko-poligr.
ob"edinenie M-va putei soobshcheniia, 1961. 79 p.

(MIRA 15:2)

(Stryy--Railroads--Repair shops)
(Assembly-line methods)

CHERNYCHEV, Pavel Nikolayevich; SOROKA, Arsentiy Kirillovich; NALIVAYKO, Petr Nikolayevich; MERKEL', Ya.P., inzh., retsenzent; BRAYLOVSKIY, N.G., inzh., red.; MEDVEDEVA, M.A., tekhn. red.

[Repair of cars on a conveyor; the experience of Kanash, Darnitsa, Borisoglebsk, and Nizhnedneprovsk car repair shops] Remont vagonov na konveyere; opyt Kanashskogo, Darnitskogo, Borisoglebskogo i Nizhnedneprovskogo vagonoremontnykh zavodov. Moskva, Transzheldorizdat, 1962. 155 p. (MIRA 16:1)

(Railroads--Repair shops)
(Assembly-line methods)

ALAD'YEV, I.T., doktor tekhn. nauk; POVARNIN, P.I., doktor tekhn. nauk;
MERKEL', Ye.Yu., kand. tekhn. nauk; MALKINA, L.I., kand. tekhn. nauk

Study of the cooling properties of ethyl alcohol at $p \leq 300$ atm.
Teploenergetika 10 no.8:70-72 Ag '63. (MIRA 16:8)

1. Energeticheskiy institut im. Krzhizhanovskogo.
(Ethyl alcohol--Thermal properties)

MERKELOV, G.F

SERGOVANTSEV, V.T., kand.tekhn.nauk; YURASOV, V.V., kand.tekhn.nauk;
 ALUKER, Sh.M., kand.tekhn.nauk; ANDRIANOV, V.N., doktor tekhn.
 nauk; ASTAF'YEV, N.N., kand.tekhn.nauk; BUDZKO, I.A., akademik;
 BYSTRITSKIY, D.N., kand.tekhn.nauk; VEYALIS, B.S., kand.tekhn.
 nauk; GIRSHBERG, V.V., inzh.; GORSHKOV, Ye.M., inzh.; GRI-
 CHEVSKIY, E.Ya., inzh.; ZAKHARIN, A.G., doktor tekhn.nauk;
 ZLATKOVSKIY, A.P., kand.tekhn.nauk; IOSIPYAN, S.G., inzh.;
 ITSKOVICH, A.M., dotsent; KAUFMAN, B.M., inzh.; KVITKO, M.N.,
 inzh.; KORSHUNOV, A.P., inzh.; LEVIN, M.S., kand.tekhn.nauk;
 LOBANOV, V.N., dotsent; LITVINENKO, A.F., inzh.; MERKELOV,
 G.F., inzh.; PIRKHAVKA, P.Ya., kand.tekhn.nauk; PRONNIKOVA,
 M.I., kand.tekhn.nauk; SMIRNOV, B.V., kand.tekhn.nauk; FAYTU-
 SHENKO, S.G., inzh.; KHODNEV, V.V., inzh.; SHCHATS, Ye.L.,
 kand.tekhn.nauk; EBIN, L.Ye., doktor tekhn.nauk; ENTIN, I.A.,
 kand.tekhn.nauk; SILIN, V.S., red.; SMELYANSKIY, V.A., red.;
 BALLOD, A.I., tekhn.red.; SMIRNOVA, Ye.A., tekhn.red.

[Handbook pertaining to the production and distribution of
 electricity in agriculture] Spravochnik po proizvodstvu i
 raspredeleniiu elektricheskoi energii v sel'skom khoziaistve.
 Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 900 p. (MIRA 13:2)

1.Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni
 V.I.Lenina (for Budzko).
 (Rural electrification)

L 9799-66 EWT(1)/EWT(m)/ETC/EPF(α)-2/ENG(m)/EWP(j)/T RPL WH/JW/WE/GS/RM

ACC NR: AT6001352

SOURCE CODE: UR/0000/65/000/000/0059/0062

AUTHOR: Alad'yev, I. T.; Povarnin, P. I.; Malkina, L. I.; Merkel', Ye. Yu.

ORG: Power Institute im. G. M. Krzhizhanovskiy (Energeticheskii institut)

TITLE: Investigation of the cooling properties of ethanol at pressures up to $800 \times 9.8 \times 10^4$ newtons/meter²

SOURCE: Teplo- 1 massoperenos. t. 1: Konvektivnyy teploobmen v odnorodnoy srede (Heat and mass transfer. v. 1: Convective heat exchange in an homogeneous medium). Minsk, Nauka i tekhnika, 1965, 59-62

TOPIC TAGS: ethanol, cooling, heat transfer

ABSTRACT: The experiments were carried out in a flow of alcohol in 1Kh18N9T stainless-steel seamless tubes with inside diameters of 0.0006 to 0.0021 meters and length to diameter ratios from 20 to 175. Tube wall temperature reached 973K, the temperature of the liquid varied from 288 to 623K, and the flow velocity of the alcohol was 5 to 60 meters/sec. The maximum specific heat fluxes reached $35 \times 10^6 \times 1.163$ watts/meter². The experiments showed that heat transfer at pressures of $300 \times 9.8 \times 10^4$ newtons/meter² is accompanied by thermal

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ACC NR: AT6001352

decomposition of ethanol with the formation of a coke-like deposit on the contact surface. Thermal decomposition of ethanol at a flow velocity less than 30 meters/sec starts at wall temperatures of 623-673 K and is practically independent of the liquid temperature. At higher velocities, decomposition of the alcohol is not observed even at a wall temperature of 973 K. At a pressure of $800 \times 9.8 \times 10^4$ newtons/meter², thermal decomposition was not observed. In the experiments at $300 \times 9.8 \times 10^4$ newtons/meter², pseudo-boiling was observed and led to an increase in the heat transfer rate. Pseudo-boiling was not observed at the pressure of $800 \times 9.8 \times 10^4$ newtons/meter². In the fully developed turbulent flow of alcohol in the absence of coke formation and pseudo-boiling at a pressure equal to or greater than $300 \times 9.8 \times 10^4$ newtons/meter², heat transfer to ethanol can be calculated by the laws of convective heat transfer. The data obtained satisfy the equation

$$Nu_{lx} = 0.021 Re_{lx}^{0.8} Pr_{lg}^{0.43} \left(\frac{Pr_{lg}}{Pr_w} \right)^{0.25} \left(\frac{l_x}{d} \right)^{0.2}$$

where subscripts lg and w refer to the liquid and wall, respectively, and l_x is the length of the tube from the start of heating to the calculating section. Analysis of the experimental results shows that there exists an optimum pressure of the applied pressure at which pseudo-boiling is most developed. Further increase in pressure leads to a worsening of conditions for the formation of a new phase and the generation of pseudo-boiling.

[06]

Card 2/2

L 9799-66

ACC NR: AT6001352

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SUB CODE: 11, 07/ SUBM DATE: 31Aug65/ ORIG REF: 000/ OTH REF: 002

ATD PRESS: 4164

Card ^{my} 303

MERKER, H.; HEILMEYER, L.

Cyto-enzymatic test of alkaline phosphatase activity in the neutrophils in differential diagnosis of chronic (idiopathic) myelo-proliferative blood diseases. Cas.lek.cesk. 98 no.49/50: 1517-1521 4 D '59.

1. Universitni klinika vnitrnich chorob Freiburg i/Br., reditel
prof. MUDr. dr.h.c. L. Heilmeyer
(LEUKEMIA blood)
(PHOSPHATASES blood)

MARKER, R.

Copper heads in enameling. Leka promishl 2 no. 9:29 '53.

MERKESHINA, L.G.

Deficiencies in planning and building railroad restaurants. Vop.
pit.15 no.1:53 Ja-F 856 (MLRA 9:4)

1. Iz sanitarnoy sluzhby tresta restoranol i bufetov L'vovskoy
zheleznoy dorogi.

(RESTAURANTS,

plants for prep. of food for railroad restaurants in
Russia)

(FOOD, PRESERVATION,

plants prep. food for railroad restaurants in Russia)

MEKESHINA, L.G.

Comparison of the mineral constituents of vegetables in areas where goiter is endemic. Vrach.delo no.11:1189-1191 N'58 (MIRA 12:1)

1. Kafedra gigiyeny pitaniya (zav. - prof. A.I. Stolkova)
L'vovskogo meditsinskogo instituta.

(MINERALS IN SOILS)
(GOITER)

MERKESHINA, L.G. (L'vov)

~~Problems in improving self service at public eating places.~~ Vopr.
pit. 17 no.1:84-87 Ja-F '58. (MIRA 11:4)

1. Iz kafedry gigiyeny pitaniya (zav. - prof. A.I.Stolmakova)
L'vovskogo meditsinskogo instituta.
(RESTAURANTS,
self-serv. caffeterias (Rus))

MERESHINA, L.G.

Use of the x-ray and ultrasonic defectoscope in the sanitary
evaluation of food products. Vop.pit. 17 no.5:79-81 S-0 '58
(MIRA 11:10)

1. Iz kafedry gigiyeny pitaniya (zav. - prof. A.I. Stoltmakova)
L'vovskogo meditsinskogo instituta.

(FOOD,

detection of glass splinters in food products by
x-rays & ultrasonics (Rus))

(ROENTGENOGRAPHY,

in detection of glass splinters in food products
(Rus))

(ULTRASONICS,

same (Rus))

MERKESHINA, L.G.

Comparative characteristics of the mineral composition of milk in
foci of endemic goiter. Vrach.delo no.10:133 0 '60. (MIRA 13:11)

1. Kafedra gigiyeny pitaniya i kommunal'noy gigiyeny (zav. - prof.
A.I.Stolmakova) L'vovskogo meditsinskogo instituta.
(MILK--COMPOSITION)
(GOITER)

MERKESHINA, L.G.

Effect of potentially acid and alkaline diets on the thyroid gland.
Vop. pit. 19 no. 6:44-50 N-D '60. (MIRA 13:10)

1. Iz kafedry gigiyeny pitaniya i kommunal'noy gigiyeny (zav. -
prof. A.I. Stolmakova) L'vovskogo meditsinskogo instituta.
(THYROID GLAND)

MERKEVICH, S.V.

In reference to an equation for the reaction kinetics of solids.
Zhur.fiz.khim. 30 no.3:688-690 Mr '56. (MLBA 9:8)

1. Akademiya nauk BSSR, Institut khimii, Minsk.
(Chemical reaction, Rate of)

USSR / Cultivated Plants. Potato. Vegetables. Melons. M-4

Asos Jour: Ref Zhur-Biol., 1960, No 16, 22903.

Author : Merkevičiute, M.

Inst : Not given.

Title : Procurement of Early Seed Potato.

Orig Pub: Soc. Zemes Ukis, 1957, No 4, 18-21.

Abstract: In 1955-1956, at the training farm of the Litovskaya Agricultural Academy, experiments were conducted to establish the influence on potato harvests of cutting and germination of tubers. A maximum harvest addition (46.7 centners/ha or 19.0%) was obtained by crosscuts in the tubers at 1 cm intervals. A greatest addition (48.1 centners/ha) to the harvest was obtained with germination of the tubers in light and keeping them in darkness for 7-10 days before planting. -- M. A. Nedvetskiy.

Card 1/1

MERKHALEV, N.V.

Connection between the germanium content and the petrographic
composition of brown coals. Uch.zap.SAIGIMS. no.5:63-68 '61.
(MIRA 15:11)

(Germanium) (Lignite--Analysis)

MERKHALEV, N.V.; TIMOFEYEVA, T.S.

Mineral germanium in coal ahs. Uch. zap. SAIGIMSa no.7:77-83 '62.
(MIRA 17:2)

1. Sredneaziatskiy nauchno-issledovatel'skiy institut geologii i
mineral'nogo syr'ya, Tashkent.

GERTSIK, A.K., inzhener; KALININ, Ye.V., kandidat tekhnicheskikh nauk;
KORSUNTSEV, A.V., kandidat tekhnicheskikh nauk; MERKHALEV, S.D.,
inzhener.

Reinforced insulator strings for overhead lines. Elektrichestvo
no.3:69-72 Mr '56. (MIRA 9:6)

1.Nauchno-issledovatel'skiy institut postoyannogo toka.
(Electric insulators and insulation)

MERKHALEV, S.D.

Wet-discharge characteristics of insulators subjected to a
d.c. voltage. Izv.NIIPT no.3:89-99 '58. (MIRA 12:1)
(Electric insulators and insulation)

KORSUNTSEV, A.V., kand.tekhn.nauk; MEREMALEV, S.D., inzh.

Effect of pulse currents on the mechanical characteristics of
the concrete in supports. Elek.sta. 29 no.8:73-76 Ag '58.
(MIRA 11:11)
(Electric power distribution) (Reinforced concrete)

MEKHALOV, S.D., inzh.

Wet-discharge characteristics of insulators at a constant
voltage. Elek.sta. 29 no.11:54-59 H '58. (MIRA 11:12)
(Electric insulators and insulation)

MERKHALEV, S. D., Cand Tech Sci -- (diss) "Research into wet-discharge voltage of insulators under the influence of constant voltage." Leningrad, 1960. 13 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Leningrad Polytechnic Inst im M. I. Kalinin); 150 copies; price not given; (KL, 25-60, 133)

MERKHALEV, S.D., inzh.

Discharge characteristics of dirty insulation. Elek.sta.
31 no.5:55-58 Ky '60. (MIRA 13:8)
(Electric insulators and insulation)
(Electric lines--Overhead)

KORSUNTSEV, A.V., kand.tekhn.nauk; MERKHALEV, S.D., inzh.

Concerning the use of high-frequency flaw detection in the preventive maintenance of the insulation of electric lines. Elek. sta. 32 no.12:30-33 D '61. (MIRA 15:1)
(Electric insulators and insulation) (Electric lines)

S/196/62/000/004/012/023
E194/E155

AUTHORS: Kalinin, Ye.V., Merkhalev, S.D., and Ryabov, B.M.

TITLE: Breakdown voltages of air gaps of various shapes
with direct and pulsating voltages

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika,
no.4, 1962, 24-25, abstract 4 E174. (Izv. N.-i. in-ta
postoyan toka, no.7, 1961, 26-35).

TEXT: Breakdown voltages are given for the following gaps
in air: rod-rod, rod-plate, conductor-plate, and rod-sphere
with direct and pulsating voltages. The tests were carried out
on a 1500 kV rectifier installation which consists of two
series-connected 3-stage cascade rectifying generators each of
750 kV and also of a 1000 kV rectifier installation. Pulsating
voltage tests were made with a circuit in which direct voltage
was applied to one electrode of the gap and alternating to the
other. The test results for the gaps are given in the table.
Breakdown voltages for rod-plate and rod-rod gaps obtained in the
Kiyevskiy politekhnicheskii institut (Kiev Polytechnical Institute)
Card 1/1



Breakdown voltages of air gaps ...

S/196/62/000/004/012/023
E194/E155

are lower than those of the NIPT gaps by 9% with positive polarity and by 5% with negative. Up to 800 kV, breakdown voltages with pulsating and direct voltages coincide, with alternating voltage the data of the Kiev Polytechnical Institute are somewhat higher. In designing d.c. air gaps of ± 400 kV class for transmission lines it is recommended to take a gradient of 4.9% kV/cm. For d.c. transmission lines of higher voltage class the selection of air gaps requires further investigation.

8 illustrations, 2 literature references.

[Abstractor's note: Complete translation.]

Card 2/8

KORBUG, Ye.V., inzh.; MERKHALEV, S.D., kand.tokhn.nauk; STANKEVICH, G.S.,
inzh.; Prinimal uchastiye PAVLOV, K.A.

Study of the discharge characteristics of soiled insulators.
Elektrichestvo no.3:76-81 Mr '62. (MIRA 15:2)

1. Nauchno-issledovatel'skiy institut postoyannogo toka.
(Electric insulators and insulation)

KORBUT, Ye.V.; MERKHALEV, S.D.; STANKEVICH, G.S.

Laboratory studies of the discharge characteristics of soiled
insulators. Izv. NIPT no.9:167-191 '62. (MIRA 15:12)
(Electric lines—Overhead)

MERKHALEV, S.D., kand.tekhn.nauk; STANKEVICH, G.S., inzh.

Duration of d.c. potential withstanding strength of suspension insulators during heavy rains. Elektrichestvo no.2:70-72 F '63. (MIRA 16:5)

1. Nauchno-issledovatel'skiy institut postoyannogo toka.
(Electric power distribution) (Electric lines—Overhead)

ACCESSION NR: AT4045613

S/0000/64/000/000/0147/0153

B

AUTHOR: Dalinin, Ye. V. (Candidate of technical sciences, Head of a sector of laboratory for high tension techniques); Merkhaley, S. D. (Candidate of technical sciences, Senior research associate); Solomonov, N. M. (Candidate of technical sciences, Senior research associate); Tikhodeyev, N. N. (Candidate of technical sciences, Head of laboratory for high tension techniques)

TITLE: Electrical characteristics of insulators used on 500 kv lines

SOURCE: Dal'niye elektropredachi 500 kv (long-distance transmission of 500 kv. electric power); sbornik statey. Moscow, Izd-vo Energiya, 1964, 147-153

TOPIC TAGS: high voltage line, power line, electric power transmission, insulator, insulator chain, breakdown voltage, disruptive voltage, flashover

ABSTRACT: The disruptive voltages of insulator chains were measured to help select the proper insulator system for a 500 kv power line. The types of insulators investigated were the P-7, P-8, P-5, P-11 and the new alkaline glass types, PM and PS. Results obtained in the laboratory and in the field for dry insulators showed that discharge in this case takes place through the air (between shielding and support structure); the results are summarized in Fig. 1 of the Enclosure. Protective shielding increases the disruptive voltage by about 10%. For wet insulators, the discharge takes place mostly over the surface of the insulator and the disruptive voltage varies almost linearly with the number of insulators in the chain; it can

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therefore be characterized by a voltage gradient E_m which generally increases with a decrease in H/D , i. e. the ratio of insulator height to the diameter of its disc. For P-type insulators with $H/D = 0.63$, $E_m = 210$ kv/m, for PM-insulators with $H/D=0.51-0.55$, $E_m=260$ kv/m. The flashover characteristics of insulator chains were then investigated at the constant voltages. These were also found to increase linearly with the number of insulators in the chain and the voltage gradient in this case varied with atmospheric conditions and the amount of dirt collected on the insulators. Correspondingly, the required number of insulators in a chain for a 500 kv line varies depending upon which criterion is used and is generally largest for a wet insulator or heavy rains (22 for P-7 insulator), the average being about 19. The impulse disruptive voltages simulating lightning conditions were investigated and it was found that for a chain of twenty P-8.5 insulators, the disruptive voltage varied between 1600 and 2500 kv depending on the polarity and presence or absence of shielding. Orig. art. has: 3 figures and 4 tables.

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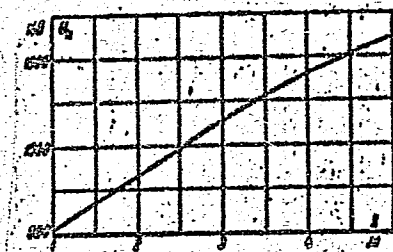


Fig. 1. Dependence of the disruptive voltage of a dry disc insulator chain with shielding on the length of the chain.

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